



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,022	10/07/2005	Tao Yang	L4050.0003	2715

32172 7590 05/07/2007  
DICKSTEIN SHAPIRO LLP  
1177 AVENUE OF THE AMERICAS (6TH AVENUE)  
NEW YORK, NY 10036-2714

EXAMINER
----------

GUZMAN, APRIL S

ART UNIT	PAPER NUMBER
----------	--------------

2618

MAIL DATE	DELIVERY MODE
-----------	---------------

05/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/528,022

**Applicant(s)**

YANG ET AL.

**Examiner**

April S. Guzman

**Art Unit**

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 03/16/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2618

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The information disclosure statement submitted on 03/16/2005 has been considered by the Examiner and made of record in the application file.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 1** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 1** recites the limitation "the electrical connections" in line 13 of claim 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 2618

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 1-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Leapman et al. (U.S. Patent Application Publication # 2003/0198008)** in view of **Lee et al. (U.S. Patent # 5,355,279)**.

Consider **claim 1**, Leapman et al. a wireless human-machine interactive device of personal computer comprising two parts, a display and a base, in which the display can be independently used separately from the base (Abstract, Figure 1, [0005], and [0014]-[0015]), which is characterized in that:

Art Unit: 2618

a display output module comprising at least a central processing unit (CPU) and a liquid crystal display (LCD), a main board containing a supply circuit for providing a voltage conversion for the main board and charging a secondary battery, a backlight board, a touch screen control board, a peripheral interface board comprising all Input/Output (I/O) device interfaces and a secondary battery are mounted on a rear part of the display (Figure 1, Figure 2, Figure3, [0014]-[0015], [0019]-[0020], [0023]-[0024], and [0026]-[0028]);

an LCD control board and a supply adapter for converting a commercial supply into a direct current (DC) supply and supplying power to the LCD control board is mounted in the base ([0014]-[0016], [0020]-[0021], and [0026]-[0027]).

However, Leapman et al. fail to teach the electrical connections between the base and the display are achieved by gilded pins (golden finger) or a multi-pin/multi-jack connector.

In the related art, Lee et al. teach the electrical connections between the base and the display are achieved by gilded pins (golden finger) or a multi-pin/multi-jack connector (Abstract, Figure 1, Figure 2A, Figure 2B, column 3 lines 18-29, column 4 lines 19-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Lee et al. into the teachings of Leapman et al. for the purpose of detachably connecting the display and the base to allow the device to be adapted to function in multiple modes of operation.

Consider **claim 2, as applied to claim 1 above**, Leapman et al. as modified by Lee et al. further teach wherein a memory, a full-duplex wireless communication module, a data receiver and decompressor module, a audio output module, a bus extension port and a peripheral interface

Art Unit: 2618

circuit module are further mounted on the main board in said display (Leapman et al. – Figure 1, Figure 2, Figure 3, [0015], [0017], [0019], and [0026]-[0029]).

Consider **claim 3, as applied to claim 1 above**, Leapman et al. as modified by Lee et al. further teach wherein control keys for a display screen and an indicative light circuit board are further mounted on said peripheral interface board (Leapman et al. – Figure 1, [0015], [0019], [0023]-[0024], and [0026]).

Consider **claim 4, as applied to claim 1 above**, Leapman et al. as modified by Lee et al. further teach a display except wherein a thickness of said display is no more than 25 millimeters.

Nonetheless, to the extent that Leapman et al. as modified by Lee et al. does not specify exact measures of the thickness of the display, this figure would have been a matter of routine experimentation to one of ordinary skill in the art at the time the invention was made, in order to provide a thin, light weight and portable display that is separable from the base that takes less space on a users desktop. See *In re Aller*, 105 USPQ 233 (CCPA 1955) (Where general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimal or workable ranges by routine experimentation).

Consider **claim 5, as applied to claim 1 above**, Leapman et al. as modified by Lee et al. further teach wherein the main board of said display forms a wireless data communication connection link directly with a main body of the personal computer, and the circuits on the main board form information exchange links with the circuits on the LCD control board within the base through the gilded pins (golden finger) or the multi-pin/multi-jack connector between the display and the base (Leapman et al. – Figure 1, and [0016]-[0017]).

Art Unit: 2618

Consider **claim 6, as applied to claim 1 above**, Leapman et al. as modified by Lee et al. further teach the secondary battery mounted on the rear part of said display (Leapman et al. – Figure 1, and [0020]).

Nonetheless, the Examiner takes Official Notice of the fact that a battery can be a three-series one-parallel one.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a three-series one-parallel one for the battery taught by Leapman et al. as modified by Lee et al. for the purpose of reducing the weight of the display.

Consider **claim 7**, Leapman et al. teach a liquid crystal display of personal computer comprising two parts, a display main body and a base, which is characterized in that a backlight board, control keys for a display screen and a indicative light circuit board are mounted on a rear part of said display main body; an LCD control board and a power supply board are mounted in the base (Figure 1, Figure 2, Figure3, [0014]-[0016], [0019]-[0021], [0023]-[0024], and [0026]-[0029]).

However, Leapman et al. fail to teach electrical connections between the base and the display are achieved by gilded pins (golden finger) or a multi-pin/multijack connector.

In the related art, Lee et al. teach electrical connections between the base and the display are achieved by gilded pins (golden finger) or a multi-pin/multijack connector (Abstract, Figure 1, Figure 2A, Figure 2B, column 3 lines 18-29, column 4 lines 19-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Lee et al. into the teachings of Leapman et al.

Art Unit: 2618

for the purpose of detachably connecting the display and the base to allow the device to be adapted to function in multiple modes of operation.

Consider **claim 8, as applied to claim 7 above**, Leapman et al. as modified by Lee et al. further teach a display except wherein a thickness of said display main body is no more than 25 millimeters.

Nonetheless, to the extent that Leapman et al. as modified by Lee et al. does not specify exact measures of the thickness of the display, this figure would have been a matter of routine experimentation to one of ordinary skill in the art at the time the invention was made, in order to provide a thin, light weight and portable display that is separable from the base that takes less space on a users desktop. See *In re Aller*, 105 USPQ 233 (CCPA 1955) (Where general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimal or workable ranges by routine experimentation).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see PTO-892 Notice of References Cited).

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to



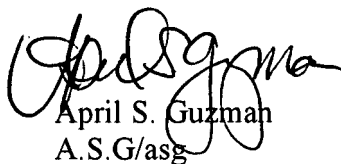
Art Unit: 2618

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April S. Guzman whose telephone number is 571-270-1101. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

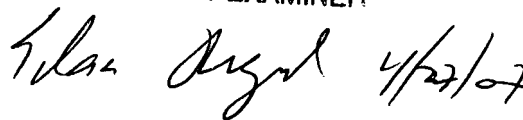
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
April S. Guzman  
A.S.G/asg

04/23/07

EDAN ORGAD  
PRIMARY PATENT EXAMINER

  
Edan Orgad 4/24/07